Microtron®

Flexible electronic solutions

Product Catalogue

Redefining wireless

LICENCE-FREE OPERATION

No need to obtain frequency licenses for the operators of laser based wireless cabling solutions.

COST-EFFECTIVE

Installation is a ONE-TIME investment with no recurring costs. Eliminates lease line costs.

INVESTMENT PROTECTION

Industry standard network interfaces and a clear upgrade path for higher bandwidth protects your investment in Trimble-FSO solutions.

EYE SAFETY

Trimble-FSO systems are designed and manufactured for eye-safe operation in compliance with the relevant EN, IEC and US standards. This ensures safe deployment and operation of Trimble-FSO products.

Technology at work for you

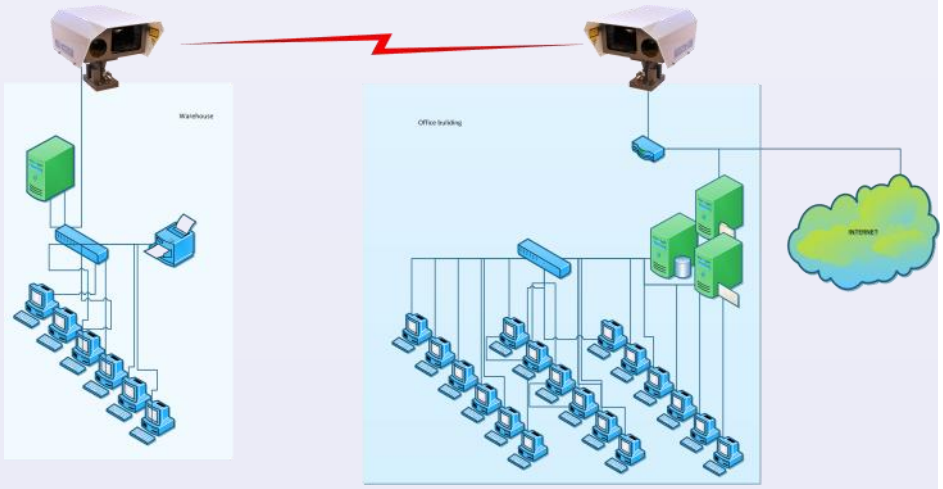
CONNECTING YOUR BUSINESS WITHOUT BOUNDRIES

Trimble-FSO Product line offers a flexible point to point connection at real wire-speed. No tricks with the bandwidth, no compression. The latency is lower than the radio technology, and there are no health concerns. Easily re-deployable, and there are no interference nor channel selection issues, no crosstalk problems. The system is safe to use even in crowded areas due to the concentrated transmission. The use of the latest innovative technology achievements turns the unit into the highest power budget FSO systems available on the market.

Flexible solutions for your business needs

OUR MISSION IS YOUR TRANSMISSION

Trimble-FSO offers products for every need. The configuration of the systems can be flexibly configured.



Redefining wireless

What is free space optics?

FLEXIBILITY

Trimble-FSO systems are divided into distance ranges – customers select the system that matches their needs. They can be deployed in a wide variety of network architecture applications, including point-to-point, ring architecture and mesh systems.

SECURE DATA TRANSMISSION

Trimble-FSO free space transmission is one of the safest transmission methods. Direct interception is virtually impossible with the concentrated beam and physical placement of the equipment.

EXCELLENT PRICE/PERFORMANCE

Trimble-FSO systems have outstanding low cost per bit ratios - are among the best in the industry.

NO INTERFERENCE

Use of infrared light for communication means no interference issues.

HIGH BANDWIDTH, HIGH SPEED

Optical free space data transmission matches the bandwidth and speed of fixed optical fibre.

Imagine an outdoor wireless technology that offers full-duplex Gigabit Ethernet throughput. A technology that can be installed license-free worldwide, and can be installed in less than a day. A technology that offers high security and a fast, high ROI. That technology is free-space optics Trimble Free Space Optics (FSO). This line-of-sight technology approach uses invisible beams of light to provide optical bandwidth connections. It's capable of sending up to 1.25 Gbps full duplex of data, voice, and video communications simultaneously through the air — enabling fiber-optic connectivity without requiring physical fiber-optic cable. It enables optical communications at the speed of light. And it forms the basis of a new category of products — optical wireless products from Trimble-FSO, the recognized leader in outdoor wireless bridging communications. Trimble-FSO provides high-speed connections, across Enterprises and between cell-site towers; it is the best technology available. FSO is a line-of-sight technology that uses invisible beams of light to provide optical bandwidth connections that can send and receive voice, video, and data information. Today, FSO technology — the foundation of Trimble-FSO optical wireless offerings — has enabled the development of a new category of outdoor wireless products that can transmit voice, data, and video at bandwidths up to 1.25 Gbps. This optical connectivity doesn't require expensive fiber-optic cable or securing spectrum licenses for radio frequency (RF) solutions. FSO technology requires light. The use of light is a simple concept similar to optical transmissions using fiber-optic cables; the only difference is the medium. Light travels through air faster than it does through glass, so it is fair to classify FSO technology as optical communications at the speed of light.

Trimble-FSO Gigabit Series combines the speed and security of industry-leading 7th generation optical wireless technology with radio frequency transmission. Based on over 15 years of wireless experience, we've designed these bridges for maximum performance and unbeatable ROI. You will have the peace of mind of knowing that your network has the industry's fastest and most secure wireless technology and availability up to 99.999% —under all weather conditions. This makes Trimble-FSO Gigabit and AT Series a safe future proof investment.

Modular Tracking Device For FSO Laser Links

Features

- Improves wireless communication up to 1500m
- Can be ordered for previously installed FSO links as well
- Auto tracking system ± 3° circular compensation
- Can hold 100Mbps as well as Gigabit FSO links
- Rugged design for harsh wireless environment communication

Electrical characteristics

Power Supply	PoE (802.3at, 802.3af)
Power consumption	7 Watts
Management	Integrated into the MGM of laser head (Web, SNMP)
	(also can be used and installed without MGM)
User interface	LCD

Physical characteristics

Housing	Aluminium alloy
Weight	8 kg *
Dimensions	240 x 190 x 175mm *

Tracking characteristics

Sensor type	CMOS
Wavelength	785 nm
Field of view of sensor (V/H)	± 8.2/11 mrad (± 0.47/0.63°)
Compensation method	Mechanical
Vertical / Horizontal compensation range	± 3/10 °
Compensation accuracy	0.1 mrad

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Protection rating	IP65

Order Information

Product Code	Description
PXATNEXT1000	Modular tracking device for FSO laser links, works on 100-1500m distance, can hold laser heads up to PXW650G (Gigabit) and PX1800FT (100Mb).

Redefining wireless

* values / end

G3 500-1500m Auto Tracking FSO Link

Features

- Wireless upto1500m communication
- Max 3.125Gbps bandwidth Full Duplex
- Auto tracking system ± 3° circular compensation
- Auto focus system—automatic beam divergence setting 0,5 mrad
- SNMP compatible management
- Rugged design for harsh wireless environment communication

Electrical characteristics

Light source	Laser diode
Laser diode power	1x30 mW
Detector	SiAPD Photo diode
Dynamic range	>17 dB
Bandwidth	1.25 - 3.125 Gbps Full duplex
Management	Web based SNMP compatible management
System latency	<50ns

Physical characteristics

Head housing	Aluminium alloy
Weight	23 kg *
Dimensions (with cover and alignment Unit)	690 x 320 x 360mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	0,5 mrad, Auto Focus Function
Receiver angle	6 mrad
Laser class	Class 1M
Power to the head	48V Power Supply

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Fade Margin

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	1500m
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	1000m
Low visibility (Fog 30dB/Km Rain ~130mm/h)	650m

Order Information

Product Code	Description
PXAT1500HM	G3 Gigabit FO/Multimode connection 500-1500m distance laser link. 48V power supply, installation kit and SNMP web management included.
PXAT1500HMH	G3 Gigabit FO/Multimode connection 500-1500m distance laser link. 48V power supply, installation kit and SNMP web management included with heater.
PXAT1500HS	G3 Gigabit FO/Single mode connection 500-1500m distance laser link. 48V power supply, installation kit and SNMP web management included.
PXAT1500HSH	G3 Gigabit FO/Single mode connection 500-1500m distance laser link. 48V power supply, installation kit and SNMP web management included, with heater.

Redefining wireless

* values / end

Gigabit 200-3000m Auto Tracking Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	2x25 mW
Detector	SiAPD Photo diode
Dynamic range	~35dB
Bandwidth	1.25Gbps
Management	Web based SNMP compatible In-band management
System latency	<50ns
Backup function	Switch

Physical characteristics

Head housing	Aluminium Alloy
Weight	22 kg *
Dimensions (with cover and alignment Unit)	690 x 320 x 360mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	2-5 mRad, Auto Focus Function
Receiver angle	8.5 mRad
Laser class	Class 1M
Power to the head	48V Power Supply

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Fade Margin @ 3000m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	25 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	17 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

Order Information

Product Code	Description
PXATW3000GT	Gigabit TX/FX Ethernet IF 200-3000m distance laser link. 48V power supply, installation kit and SNMP web management included. With Auto Back-up function.
PXATW3000GTH	Gigabit TX/FX Ethernet IF 200-3000m distance laser link. 48V power supply, installation kit and SNMP web management included. With Auto Back-up function, with heater.

Redefining wireless

* values / end

100Mb 200-3000m Auto Tracking Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	2x35 mW
Detector	SiAPD Photo diode
Dynamic range	>40dB
Bandwidth	100 Mbps
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	22 kg *
Dimensions (with cover and alignment Unit)	690 x 320 x 360mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	2-5 mRad, Auto Focus Function
Receiver angle	8.5 mRad
Laser class	Class 1M
Power to the head	48V Power Supply

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Fade Margin @ 3000m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	24 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	16 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

Order Information

Product Code	Description
PXAT3000FT	100Mb Ethernet IF 200-3000m distance laser link. 48V power supply, installation kit and SNMP web management included.

Redefining wireless

* values / end

100 Mb 100-500m Auto Focus Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	1x35mW
Detector	APD Photodiode
Dynamic range	~30dB
Bandwidth	100Mbps
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8 kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	1-10 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet)
Power to the Head	IEEE 802.3af (Power over Ethernet)
Power to the Head	POE injector

Fade margin @ 500 m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	Max: 30 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	Max: 27 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	Max: 20dB

Order Information

Product Code	Description
PXAF500FT	100Mb TX Ethernet IF 100-500m distance laser link. POE power supply, installation kit and SNMP web management included, with Auto Focus.
PXAF500FTH	100Mb TX Ethernet IF 100-500m distance laser link. POE power supply, installation kit, SNMP web management included and with Auto Focus and with heater.

Redefining wireless

* values / end

100 Mb 500-1000m Auto Focus Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	1x35mW
Detector	SiAPD Photo diode
Dynamic range	~35dB
Bandwidth	100Mbps
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8 kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	1-10 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power required	IEEE 802.3af (Power over Ethernet)
Power to the head	IEEE 802.3af (Power over Ethernet)
Power to the head	POE injector

Fade Margin @ 1000m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	25 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	17 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

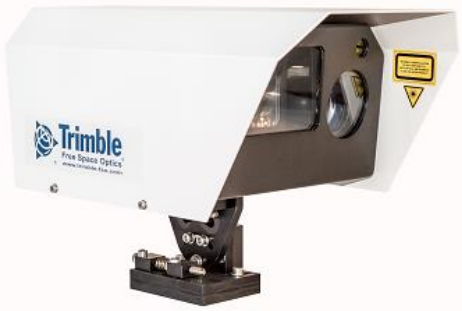
Order Information

Product Code	Description
PXAF1000FT	100Mb TX Ethernet IF 500-1000m distance laser link. POE power supply, installation kit and SNMP web management included with Auto Focus.
PXAF1000FTH	100Mb TX Ethernet IF 500-1000m distance laser link. POE power supply, installation kit and SNMP web management included with Auto Focus and with heater.

Redefining wireless

* values / end

Gigabit 100-500m Auto Focus Laser Link



Electrical characteristics

Light source	Laser Diode
Laser diode power	1x 25 mW
Detector	SiAPD Photodiode
Dynamic range	~35dB
Bandwidth	1.25Gbps
Management	Web based SNMP compatible Out-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8 kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	1-10 mRad, Manual Focus Function
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet)
Power to the Head	IEEE 802.3af (Power over Ethernet)
Power to the Head	POE injector

Fade Margin @ 500m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	Max 29 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	Max 23 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	Max 16 dB

Order Information

Product Code	Description
PXAFW500GT	Gigabit TX/FX Ethernet IF 100-500m distance laser link. POE power supply, installation kit, SNMP web management included, with Auto Focus and Auto Back-up function.
PXAFW500GTH	Gigabit TX/FX Ethernet IF 100-500m distance laser link. POE power supply, installation kit, SNMP web management included, with Auto Focus and Auto Back-up function, with heater.

Redefining wireless

* values / end

Gigabit 20-400m Manual Focus Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	1x25 mW
Detector	SiAPD Photodiode
Dynamic range	~35dB
Bandwidth	1.25Gbps
Management	Web based SNMP compatible Out-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	2-5 mRad, Manual Focus Function
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet)
Power to the Head	IEEE 802.3af (Power over Ethernet)
Power to the Head	POE injector

Fade Margin @ 400 m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	23 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	19 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	14 dB

Order Information

Product Code	Description
PXMFW400GT	Gigabit TX/FX Ethernet IF 20-400m distance laser link. POE power supply, installation kit, and SNMP web management included. Manual Beam Focus with Auto Back-up function.
PXMFW400GTH	Gigabit TX/FX Ethernet IF 20-400m distance laser link. POE power supply, installation kit, and SNMP web management included. Manual Beam Focus with Auto Back-up function and with heater.
PXMF400GT	Gigabit TX/FX Ethernet IF 20-400m distance laser link. POE power supply, installation kit, and SNMP web management included. Manual Beam Focus.
PXMF400GTH	Gigabit TX/FX Ethernet IF 20-400m distance laser link. POE power supply, installation kit, and SNMP web management included. Manual Beam Focus and with heater.

Redefining wireless

* values / end

Gigabit 400-650m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	2x25 mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	1,25 Gbps
Management	Web based SNMP compatible in-band management
System latency	<50ns
Backup function	Switch

Physical characteristics

Head housing	Aluminium Alloy
Weight	12kg *
Dimensions (with cover and alignment Unit)	560x324x298 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 Centigrade
Storage temperature	-40 to +80 Centigrade
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet) 18W w/o heating w heating 28W
Power to the Head	IEEE 802.3af (Power over Ethernet) 18W w/o heating w heating 28W
Power to the Head	POE injector

Fade Margin @ 650m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	24 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	16 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

Order Information

Product Code	Description
PXW650GT	Gigabit TX/FX Ethernet IF 400-650m distance laser link. POE power supply, installation kit and SNMP web management included. With Auto Back-up function.
PXW650GTH	Gigabit TX/FX Ethernet IF 400-650m distance laser link. POE power supply, installation kit and SNMP web management included. With Auto Back-up function and with heater.

Redefining wireless

* values / end

Gigabit 650-3500m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	8x25mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	1,25 Gbps
Management	Web based SNMP compatible in-band management
System latency	<50ns
Power to the Head	48 V Power Supply
Backup Function	Switch

Physical characteristics

Head housing	Aluminium Alloy
Weight	28kg *
Dimensions (with cover and alignment Unit)	650x470x405 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M
Power to he Head	48 V Power supply

Environment

Operating temperature	-20 to +60 Centigrade
Storage temperature	-40 to +80 Centigrade
Humidity	95% non condensed
Laser head protection rating	IP65

Fade Margin @ 3500m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	34 dB
Medium visibility (Fog 10dB/Km Rain ~30mm/h)	12 dB

Order Information

Product Code	Description
PXW3500GT	Gigabit Ethernet IF 650-3500m distance laser link. 48 V power supply, installation kit and SNMP web management included. With Auto Back-up function.
PXW3500GTH	Gigabit Ethernet IF 650-3500m distance laser link. 48 V power supply, installation kit and SNMP web management included. With Auto Back-up function and with heater.

Redefining wireless

* values / end

100 Mb 20-350m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	1x35mW
Detector	SiPIN Photodiode
Dynamic range	~30dB
Bandwidth	100Mbps
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8 kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	2-5 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet)
Power to the Head	IEEE 802.3af (Power over Ethernet)
Power to the Head	POE injector

Fade Margin @ 350 m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	24 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	20 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	15 dB

Order Information

Product Code	Description
PX200FT	100Mb TX Ethernet IF 20-200m distance laser link. POE power supply, installation kit, and SNMP web management included.
PX200FTH	100Mb TX Ethernet IF 20-200m distance laser link. POE power supply, installation kit, and SNMP web management included, with heater.
PX350FT	100Mb TX Ethernet IF 20-0350m distance laser link. POE power supply, installation kit, and SNMP web management included.
PX350FTH	100Mb TX Ethernet IF 200-350m distance laser link. POE power supply, installation kit, and SNMP web management included, with heater.

Redefining wireless

* values / end

100 Mb 350-650m Manual Focus Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	1x35mW
Detector	SiAPD Photo diode
Dynamic range	~35dB
Bandwidth	100Mbps
Management	Web based SNMP compatible In-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	8 kg *
Dimensions (with cover and alignment Unit)	390 x 258 x 290 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	2-5 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power required	IEEE 802.3af (Power over Ethernet)
Power to the head	IEEE 802.3af (Power over Ethernet)
Power to the head	POE injector

Fade Margin @ 650m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	25 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	17 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

Order Information

Product Code	Description
PXMF650FT	100Mb TX Ethernet IF 350-650m distance laser link. POE power supply, installation kit and SNMP web management included. Manual beam focus.
PXMF650FTH	100Mb TX Ethernet IF 350-650m distance laser link. POE power supply, installation kit and SNMP web management included. Manual beam focus and with heater.

Redefining wireless

* values / end

100Mb 650-1800m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	2x35mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	100 Mbps
Management	Web based SNMP compatible in-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	12 kg
Dimensions (with cover and alignment Unit)	560x324x298 mm

Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	POE injector

Fade Margin @ 1800m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	24 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	16 dB
Low visibility (Fog 30dB/Km Rain ~130mm/h)	7 dB

Order Information

Product Code	Description
PX1800FT	100Mb TX Ethernet IF 650-1800m distance laser head. POE power supply, installation kit and SNMP web management included.
PX1800FTH	100Mb TX Ethernet IF 650-1800m distance laser head. POE power supply, installation kit and SNMP web management included with heater.

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* values / end

100Mb 1800-3000m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	2x35mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	100 Mbps
Management	Web based SNMP compatible in-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	19 kg
Dimensions (with cover and alignment Unit)	650x365x310 mm

Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W
Power to the Head	POE injector

Fade Margin @ 1800m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	24 dB
Medium visibility (Fog 15dB/Km Rain ~50mm/h)	16 dB

Order Information

Product Code	Description
PX1800FT	100Mb TX Ethernet IF 650-1800m distance laser head. POE power supply, installation kit and SNMP web management included.
PX1800FTH	100Mb TX Ethernet IF 650-1800m distance laser head. POE power supply, installation kit and SNMP web management included with heater.

Redefining wireless

* values / end

100Mb 3000-5000m Laser Link

Electrical characteristics

Light source	Laser Diode
Laser diode power	4x35mW / 8x35mW
Detector	SiAPD Photodiode
Dynamic range	>40dB
Bandwidth	100 Mbps
Management	Web based SNMP compatible in-band management
System latency	<50ns

Physical characteristics

Head housing	Aluminium Alloy
Weight	28 Kgs *
Dimensions (with cover and alignment Unit)	650x470x405 mm *

Optical characteristics

Wavelength	785 nm
Beam divergence	0.5-15 mRad
Receiver angle	8.5 mRad
Laser class	Class 1M

Environment

Operating temperature	-20 to +60 °C
Storage temperature	-40 to +80 °C
Humidity	95% non condensed
Laser head protection rating	IP65

Power

Power Required	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W / 48 V Power Supply
Power to the Head	IEEE 802.3af (Power over Ethernet) 11W w/o heating w heating 21W /48 V Power Supply
Power to the Head	POE injector

Fade Margin @3000m/5000m

Normal visibility (Fog 3dB/Km Rain ~6mm/h)	30 dB
Medium visibility (Fog 10dB/Km Rain ~30mm/h)	16 dB

Order Information

Product Code	Description
PX3000FT	100Mb TX Ethernet IF 1800-3000m distance laser link. POE power supply, installation kit and SNMP web management included.
PX3000FTH	100Mb TX Ethernet IF 1800-3000m distance laser link. POE power supply, installation kit and SNMP web management included with heater.

Redefining wireless

* values / end

Redefining wireless

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Flexible electronic solutions

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